

App. No. 10/820,535
Amendment Dated July 5, 2006
Reply to Office Action of April 5, 2006

REMARKS/ARGUMENTS

Claims 1-20 are pending in this application. Claims 1-20 stand rejected. Claims 1, 8, and 16 have been amended. Claims 1-2, 4, 8-9, 13-16, 20 stand rejected under 35 USC §103 (a) as being unpatentable over U.S. Patent No. 5,982,221 ("Tuthill") in view of U.S. Patent No. 6,612,738 ("Beer"). Claims 1, 3, 5, 8, 10, 12, 14, 15, 17, 19 stand rejected under 35 USC §103 (a) as being unpatentable over U.S. Patent No. 6,008,685 ("Kunst") in view of Tuthill. Claim 7 stands rejected under 35 USC §103 (a) as being unpatentable over Kunst in view of Tuthill and further in view of U.S. Patent Application Publication No. 2003/0133491 ("Shih"). Claim 1, 6, 8, 13, 20 stand rejected under 35 USC § 103(a) as being unpatentable over U.S. Patent No. 5,660,474 ("Kurihara") in view of Kunst and Beer. Claims 1, 3, 4, 8, 10, 11, 13, 15, 17, and 20 stand rejected under 35 USC §102 (b) as being unpatentable over U.S. Patent No. 6,149,299 ("Aslan"). In view of the foregoing amendments and following remarks, reconsideration and allowance of all pending claims are respectfully requested.

Claim Rejections under 35 U.S.C. §103(a)

Claims 1-2, 4, 8-9, 13-16, 20 stand rejected under 35 USC §103 (a) as being unpatentable over U.S. Patent No. 5,982,221 ("Tuthill") in view of U.S. Patent No. 6,612,738 ("Beer"). As noted in the Action, Tuthill does not explicitly teach to colocate the measuring circuit (differential ADC) onto a second substrate. Furthermore, Tuthill does not teach or suggest using

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exactly one of the first and second terminals for temperature measurements. Instead, Tuthill teaches using a switched differential circuit to produce a compounded delta VBE.

Beer discloses the voltage meter having two probes connected to two pins that are further coupled to two opposing polarities of a single diode. Accordingly, Beer fails to disclose the claimed first and second terminals. Thus, neither Tuthill nor Beer, singly or in combination, teaches or suggests using exactly one of the first and second terminals between the two substrates to perform temperature-related voltage measurements. Accordingly claims 1-2, 4, 8-9, 13-16, 20 are believed to be allowable, and solicitation to that effect is made.

Claims 1, 3, 5, 8, 10, 12, 14, 15, 17, 19 stand rejected under 35 USC §103 (a) as being unpatentable over U.S. Patent No. 6,008,685 ("Kunst") in view of Tuthill. As the Action states, Kunst fails to teach a dual diode on a common substrate. Applicant traverses the assertion that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the device so as to have more than one sensing diode so as to solve a problem of two current sources mismatching. Kunst instead teaches (see the description of Fig. 3) using a programmable current generator to minimize current mismatches. Instead, using two diodes with two (or more) different current sources makes the temperature measurement less accurate because of differing base sizes (for example) due to variations in processes in manufacturing the two diodes. Neither Kunst nor Tuthill, singly or in combination, teach using different currents across a single junction of a dual diode system to make a temperature measurement. Accordingly claims (as amended) 1, 3, 5, 8, 10, 12, 14, 15, 17, 19 are believed to be allowable, and solicitation to that effect is made.

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Claim 7 stands rejected under 35 USC §103 (a) as being unpatentable over Kunst in view of Tuthill and further in view of U.S. Patent Application Publication No. 2003/0133491 ("Shih"). Kunst, Tuthill, and/or Shih, either singly or in combination, fail to recite the temperature measurement circuit determining the junction temperature of the first diode. Instead, Shih measures the junction temperature of diode "LED under test," which is in series with diodes D1 and D2 (note that the anode of diode "LED under test" is connected to the cathodes of diodes D1 and D2). Thus the "LED under test" is not coupled with the same polarity electrode of the other diode in the dual diode system. Accordingly claim 7 is believed to be allowable, and solicitation to that effect is made.

Claim 1, 6, 8, 13, 20 stand rejected under 35 USC § 103(a) as being unpatentable over U.S. Patent No. 5,660,474 ("Kurihara") in view of Kunst and Beer. As noted above, Kunst and Beer fail to teach the recited elements of the claims. Kurihara fails to remedy the lack of prior art, either singly, or by any combination with Kunst and Beer. As noted by the Action, Kurihara does not teach to position and/or collocate the diodes on a first substrate and the temperature measurement circuit on a second diode. In particular Kurihara fails to recite using exactly one of the two terminals to perform the voltage measurement. Accordingly claims 1, 6, 8, 13, 20 are believed to be allowable, and solicitation to that effect is made.

Claim Rejections under 35 U.S.C. § 102(b)

Claims 1, 3, 4, 8, 10, 11, 13, 15, 17, and 20 stand rejected under 35 USC §103 (a) as being unpatentable over U.S. Patent No. 6,149,299 ("Aslan"). Aslan does not teach or suggest using exactly one of the two terminals to perform the voltage measurement. Instead, Aslan

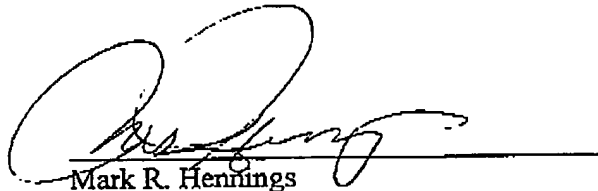
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teaches the advantages of using a differential-ended measurement when available (see 5:62-6:13). This teaches away from using a differential-ended measurement when the differential-ended measurement means are already present. Accordingly, Aslan does not anticipate claims 1, 3, 4, 8, 10, 11, 13, 15, 17, and 20. Claims 1, 3, 4, 8, 10, 11, 13, 15, 17, and 20 are believed to be allowable and notice to that effect is solicited.

In view of the foregoing amendments and remarks, all pending claims are believed to be allowable and the application is in condition for allowance. Therefore, a Notice of Allowance is respectfully requested. Should the Examiner have any further issues regarding this application, the Examiner is requested to contact the undersigned attorney for the applicant at the telephone number provided below.

Respectfully submitted,

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